

Title (en)
Semiconductor switching circuit device and manufacturing method thereof

Title (de)
Halbleiterschaltvorrichtung und Methode zur Herstellung

Title (fr)
Dispositif commutateur à semiconducteur et procédé pour sa fabrication

Publication
EP 1363331 A2 20031119 (EN)

Application
EP 03009005 A 20030417

Priority
JP 2002114959 A 20020417

Abstract (en)
Posts (71) are disposed at the surroundings of an FET and a shield metal (70) supported by the posts (71) is placed above the FET to create a void (60) between the FET and the shield metal (70). Since the separation between the FET and the shield metal (70) is small, the resin (80) does not enter the void. A resin layer (80) cover the shield metal (70). The shield metal (70) is connected to an electrode pad that receives a DC control signal. Although high frequency signals that are applied to the FET may leak between the source (13) and drain electrodes (15) of the FET through the resin layer (80) covering the FET even when the FET is switched off, the void (60) and the shield metal (70) prevent such signal leakage.

IPC 1-7
H01L 29/41; **H01L 23/552**

IPC 8 full level
H01L 23/66 (2006.01); **H01L 23/482** (2006.01); **H01L 23/485** (2006.01); **H01L 23/528** (2006.01); **H01L 23/552** (2006.01); **H01L 29/417** (2006.01)

CPC (source: EP US)
H01L 23/4824 (2013.01 - EP US); **H01L 23/552** (2013.01 - EP US); **H01L 23/66** (2013.01 - EP US); **H01L 24/03** (2013.01 - EP US); **H01L 24/05** (2013.01 - EP US); **H01L 24/06** (2013.01 - EP US); **H01L 24/48** (2013.01 - EP US); **H01L 29/4175** (2013.01 - EP US); **H01L 24/45** (2013.01 - EP US); **H01L 2224/04042** (2013.01 - EP US); **H01L 2224/05554** (2013.01 - EP US); **H01L 2224/05599** (2013.01 - EP US); **H01L 2224/05644** (2013.01 - EP US); **H01L 2224/05666** (2013.01 - EP US); **H01L 2224/05669** (2013.01 - EP US); **H01L 2224/32245** (2013.01 - EP US); **H01L 2224/45144** (2013.01 - EP US); **H01L 2224/48091** (2013.01 - EP US); **H01L 2224/48247** (2013.01 - EP US); **H01L 2224/48465** (2013.01 - EP US); **H01L 2224/48644** (2013.01 - EP US); **H01L 2224/48666** (2013.01 - EP US); **H01L 2224/48669** (2013.01 - EP US); **H01L 2224/73265** (2013.01 - EP US); **H01L 2924/00014** (2013.01 - EP US); **H01L 2924/01005** (2013.01 - EP US); **H01L 2924/01006** (2013.01 - EP US); **H01L 2924/01012** (2013.01 - EP US); **H01L 2924/01013** (2013.01 - EP US); **H01L 2924/01014** (2013.01 - EP US); **H01L 2924/01015** (2013.01 - EP US); **H01L 2924/01022** (2013.01 - EP US); **H01L 2924/01028** (2013.01 - EP US); **H01L 2924/01031** (2013.01 - EP US); **H01L 2924/01078** (2013.01 - EP US); **H01L 2924/01079** (2013.01 - EP US); **H01L 2924/01327** (2013.01 - EP US); **H01L 2924/05042** (2013.01 - EP US); **H01L 2924/10161** (2013.01 - EP US); **H01L 2924/10329** (2013.01 - EP US); **H01L 2924/12032** (2013.01 - EP US); **H01L 2924/1306** (2013.01 - EP US); **H01L 2924/13063** (2013.01 - EP US); **H01L 2924/14** (2013.01 - EP US); **H01L 2924/1423** (2013.01 - EP US); **H01L 2924/16235** (2013.01 - EP US); **H01L 2924/181** (2013.01 - EP US); **H01L 2924/19043** (2013.01 - EP US); **H01L 2924/3025** (2013.01 - EP US)

C-Set (source: EP US)
1. **H01L 2224/45144** + **H01L 2924/00014**
2. **H01L 2924/1306** + **H01L 2924/00**
3. **H01L 2924/12032** + **H01L 2924/00**
4. **H01L 2224/73265** + **H01L 2224/32245** + **H01L 2224/48247** + **H01L 2924/00012**
5. **H01L 2924/181** + **H01L 2924/00012**
6. **H01L 2224/48091** + **H01L 2924/00014**
7. **H01L 2224/05644** + **H01L 2924/00014**
8. **H01L 2224/48465** + **H01L 2224/48247** + **H01L 2924/00**
9. **H01L 2924/00014** + **H01L 2224/05599** + **H01L 2924/00**
10. **H01L 2224/48465** + **H01L 2224/48091** + **H01L 2924/00**
11. **H01L 2224/48644** + **H01L 2924/00**
12. **H01L 2224/48666** + **H01L 2924/00**
13. **H01L 2224/48669** + **H01L 2924/00**

Cited by
EP1753024A1; EP2083442A1; US7888797B2; US8026595B2; US8476118B2

Designated contracting state (EPC)
DE

DOCDB simple family (publication)
EP 1363331 A2 20031119; **EP 1363331 A3 20060517**; CN 1291492 C 20061220; CN 1455458 A 20031112; US 2004021156 A1 20040205; US 6853072 B2 20050208

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